IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): A method for the continuous vacuum cleaning of a substrate, ~~characterized in that~~ wherein:

- a species is chosen that has a low sputtering efficiency and is chemically active with regard to the soiling matter;

- using at least one linear ion source, a plasma is generated from a gas mixture comprising predominantly the species having a low sputtering efficiency~~, especially one based on oxygen~~; and

- at least one surface portion of said substrate optionally associated with a layer is subjected to said plasma so that said ionized species at least partly eliminates, by chemical reaction, the soiling matter possibly adsorbed or located on said surface portion.

Claim 2 (Currently Amended): The cleaning method as claimed in claim 1, ~~characterized in that~~ wherein it is followed, without breaking vacuum, by at least one phase of depositing at least one thin film on said surface portion of said substrate, this deposition phase being carried out by a vacuum deposition process.

Claim 3 (Currently Amended): The method as claimed in claim 2, ~~characterized in that~~ wherein the deposition process consists of a cathode sputtering process~~, especially magnetically enhanced sputtering~~.

Claim 4 (Currently Amended): The method as claimed in claim 2, ~~characterized in that~~ wherein the vacuum deposition process consists of a process based on CVD.

Claim 5 (Currently Amended): The method as claimed in ~~one of claims 1 to 4, characterized in that~~ claim 1, wherein a step of causing relative movement between the ion source and the substrate is carried out.

Claim 6 (Currently Amended): The method as claimed in ~~one of claims 1 to 5, characterized in that~~ claim 1, wherein the linear ion source is positioned with respect to the surface portion of the substrate in such a way that the average sputtering efficiency of the ionized species does not allow sputtering of said surface portion.

Claim 7 (Currently Amended): The method as claimed in ~~one of claims 1 to 6, characterized in that~~ claim 1, wherein the linear ion source is positioned within a plant of industrial size.

Claim 8 (Currently Amended): The method as claimed in ~~one of claims 1 to 7, characterized in that~~ claim 1, wherein the linear ion source generates a collimated beam of ions with an energy between 0.5 and 2.5 keV~~, preferably between 1 and 2 keV, especially about 1.5 keV~~.

Claim 9 (Currently Amended): The method as claimed in ~~one of claims 1 to 3 and 5 to 8, characterized in that~~ claim 1, wherein it is carried out within at least one chamber intended for depositing thin films by vacuum sputtering, in a pumping chamber, or instead of a cathode, or in an intermediate chamber located between the latter items, or else within an airlock for introducing the substrates.

Claim 10 (Currently Amended): The method as claimed in ~~one of claims 1 to 9, characterized in that~~ claim 1, wherein two different surface portions of a substrate are cleaned simultaneously or successively, using at least said linear ion source.

Claim 11 (Currently Amended): A substrate obtained by implementing the method as claimed in ~~any one of claims 1 to 10, characterized in that~~ claim 1, wherein the substrate is provided with a multilayer coating having a high reflection for thermal radiation, the coating of which consists of at least one sequence of at least five successive layers~~, namely~~ of the following:

- a first layer based on metal oxide or semiconductor~~, especially chosen from tin oxide, titanium oxide and zinc oxide~~;

- a layer of a metal oxide or semiconductor~~, especially one based on zinc oxide,~~ deposited on the first layer;

- a silver layer;

- a metal layer ~~chosen especially from nickel chromium, titanium, niobium and zirconium,~~ deposited on the silver layer; and

- an upper layer comprising a metal oxide or semiconductor,~~ especially chosen from tin oxide, zinc oxide and titanium oxide,~~ deposited on this metal layer.

Claim 12 (Currently Amended): The substrate obtained by implementing the method as claimed in ~~any one of claims 1 to 10, characterized in that~~ claim 1, wherein the substrate is provided with a thin-film multilayer comprising an alternation of n functional layers A having reflection properties in the infrared and/or in solar radiation, ~~especially based on silver,~~ and of (n + 1) coatings B where n $\geq$1, said coatings B comprising a layer or superposition of layers of a dielectric ~~based in particular on silicon nitride~~, or on a mixture of

silicon and aluminum, or on silicon oxynitride, or on zinc oxide, so that each functional layer A is placed between two coatings B, the multilayer also including layers C that adsorb in the visible, ~~especially based on titanium, on nickel chromium or on zirconium,~~ these layers being optionally nitrided and located above and/or below the functional layer.

Claim 13 (Currently Amended): The substrate obtained by implementing the method as claimed in ~~any one of claims 1 to 10, characterized in that~~ claim 1, wherein the substrate is provided with a thin-film multilayer comprising an alternation of one or more n functional layers having reflection properties in the infrared and/or in solar radiation~~, especially of essentially metallic nature,~~ and of (n + 1) [["]]coatings[["]], where n ≥1, said multilayer being composed, on the one hand, of one or more layers, including at least one layer made of a dielectric~~, especially based on tin oxide or nickel chromium oxide,~~ and, on the other hand, of at least one functional layer made of silver or of a metal alloy containing silver, the (each) functional layer being placed between two dielectric layers.

Claim 14 (Currently Amended): The substrate obtained by implementing the method as claimed in ~~any one of claims 1 to 10, characterized in that~~ claim 1, wherein it comprises a thin-film multilayer comprising at least one sequence of at least five successive layers~~,~~ ~~namely~~ of the following:

- a first layer~~, especially based on silicon nitride~~;

- a dielectric layer~~, especially based on nickel chromium or on titanium,~~ deposited on the first layer;

- a functional layer having reflection properties in the infrared and/or in solar radiation~~, especially based on silver~~;

- a metal layer~~, especially chosen from nickel chromium, titanium, niobium and zirconium,~~ on the silver layer; and

- an upper layer based on silicon nitride, deposited on this metal layer.

Claim 15 (Currently Amended): The substrate obtained by implementing the method as claimed in ~~any one of claims 1 to 10~~ claim 1, provided with a thin-film multilayer that acts on solar radiation, ~~characterized in that~~ wherein said multilayer comprises at least one functional layer based on a partially or fully nitrided metal, said metal belonging to the group consisting of niobium, tantalum and zirconium, said functional layer being surmounted by at least one overlayer based on aluminum nitride or oxynitride, silicon nitride or oxynitride, or a mixture of at least two of these compounds, said multilayer also including, between said substrate and said functional layer, at least one underlayer made of a transparent dielectric, ~~especially chosen from silicon and/or aluminum nitride, silicon and/or aluminum oxynitride and silicon oxide~~.

Claim 16 (Currently Amended): The substrate obtained by implementing the method as claimed in ~~any one of claims 1 to 10~~ claim 1, which ~~includes~~ comprises, on at least one of its sides, an antireflection coating made of a thin-film multilayer made of dielectrics having alternately high and low refractive indices, ~~characterized in that~~ wherein the high-index first layer and/or the high-index third layer are based on one or more metal oxides ~~chosen~~ selected from the group consisting of zinc oxide, tin oxide and zirconium oxide, or based on one or more nitrides chosen from silicon nitride and/or aluminum nitride, or based on tin/zinc/antimony mixed oxides or based on silicon/titanium or titanium/zinc mixed oxides, or based on mixed nitrides ~~chosen~~ selected from the group consisting of silicon nitride and zirconium nitride, and the low-index second layer and/or the low-index fourth layer are based

on silicon oxide, silicon oxynitride and/or silicon oxycarbide or on a silicon aluminum mixed oxide.

Claim 17 (Currently Amended): The substrate obtained by implementing the method as claimed in ~~any one of claims 1 to 10, characterized in that~~ claim 1, wherein the substrate ~~includes~~ comprises, on at least one of its sides, an electrochemical device~~, especially an electrically controllable system of the glazing type and having variable optical and/or energy properties, of a photovoltaic device or within an electroluminescent device~~.

Claim 18 (Currently Amended): The substrate as claimed in ~~any one of claims 11 to 17, characterized in that~~ claim 11, ~~wherein it is a substrate intended~~ for the automobile industry, ~~especially a sunroof, a side window, a windshield, a rear window or a rearview mirror,~~ or single or double glazing for buildings,~~-especially interior or exterior glazing for buildings, a store showcase or counter, which may be curved,~~ glazing for protecting objects of the painting type, an antidazzle computer screen, or glass furniture.

Claim 19 (Currently Amended): The substrate as claimed in claim 18, ~~characterized in that it~~ wherein the substrate is curved.

Claim 20 (New): The cleaning method as claimed in claim 1, wherein the at least one linear ion source is based on oxygen.

Claim 21 (New): The cleaning method as claimed in claim 1, wherein the cathode sputtering process is magnetically enhanced sputtering.

Claim 22 (New): The cleaning method as claimed in claim 1, wherein the linear ion source generates a collimated beam of ions with an energy between 1 and 2 keV.

Claim 23 (New): The cleaning method as claimed in claim 1, wherein the linear ion source generates a collimated beam of ions with an energy at about 1.5 keV.

Claim 24 (New): The substrate according to claim 11, wherein the first layer is selected from the group consisting of tin oxide, titanium oxide and zinc oxide; the second layer is based on zinc oxide, the metal layer is selected from the group consisting of nickel chromium, titanium, niobium and zirconium; and the upper layer is selected from the group consisting of tin oxide, zinc oxide and titanium oxide.

Claim 25 (New): The substrate according to claim 12, wherein the thin-film multilayer is based on silver; the coatings B are based on silicon nitride, or on a mixture of silicon and aluminum, or on silicon oxynitride, or on zinc oxide; and the layers C are based on titanium, on nickel chromium or on zirconium.

Claim 26 (New): The substrate according to claim 13, wherein the thin-film multilayer is of metallic nature, and the at least one layer made of a dielectric is based on tin oxide or nickel chromium oxide.

Claim 27 (New): The substrate according to claim 14, wherein the first layer is based on silicon nitride; the dielectric layer is based on nickel chromium or on titanium; the functional layer is based on silver; and the metal layer is selected from the group consisting of nickel chromium, titanium, niobium and zirconium.

Claim 28 (New): The substrate according to claim 15, wherein the at least one underlayer is selected from the group consisting of silicon and/or aluminum nitride, silicon and/or aluminum oxynitride and silicon oxide.

Claim 29 (New): The substrate according to claim 17, wherein the electrochemical device is an electrically controllable system of the glazing type and having variable optical and/or energy properties, of a photovoltaic device or within an electroluminescent device.